

25th Anniversary Raises Questions About PC's Future Development

Charles Smulders, Stephen Prentice, Stephen Kleynhans, Brian Gammage

The PC has succeeded for 25 years largely because of its ability to evolve and exploit developments around it. But new usage patterns will test the flexibility of both the platform and the industry that supports it.

Event

12 August 2006 will mark 25 years since the launch of the IBM PC.

Analysis

During the past 25 years, Gartner estimates that 1.6 billion PCs have been sold and 870 million are currently installed. The annual revenue for this huge industry tops \$200 billion. Three factors have played a central role in the PC's success:

- The PC is an open, extensible platform that can evolve to fulfill different functions. Initially, its appeal lay in its ability to harness the power of software and later the Internet.
- Economics of scale have favored the PC. Thin-client substitute devices are available, but their shipment volumes are less than 1 percent of PC shipments. PC prices continue to fall.
- The physical limitations of the human body dictate which device is used and for what function. Smart phones are sometimes cited as PC replacements, but they can only perform a limited set of data functions.

But the PC faces challenges to its primacy. Although operating systems and applications continue to add features and capabilities, these improvements are difficult to translate into meaningful benefits for users. The virtuous circle of innovation that drove the PC has become a "vicious cycle" of increasing complexity. Simplicity and stability are key PC failings.

- Enterprises find that PC configuration and operational maintenance leads to operating expenses that far outweigh original capital costs.
- Consumers want devices that simply need to be switched on to work. Home users are particularly poorly served by PCs.
- Vendors have a very slim profit margin from PCs.

In the coming years, Gartner expects many new devices will challenge the PC. The growing availability of cheap, ubiquitous bandwidth and processing power, coupled with Internet-based services, makes possible a new style of application delivery. This mode of delivery promises to unravel some of the complexity surrounding PCs.

The PC platform will not meet all needs, but its inherent flexibility to adapt to market demands and encompass new usage patterns makes it a strong contender in the future. Virtualization will be a key development, enabling the delineation of function and access, which will, in turn, deliver improved ease of use and security benefits. The biggest challenge the PC industry will face is adapting to new applications, management and business models while supporting the legacy versions of these as well.

Recommendations

- **Users:** Understand how PC virtualization technology should be employed in your organization to derive the greatest return on investment.

- **Vendors:** Prepare for further industry churn as the PC platform navigates this new set of challenges.

Analytical Sources: Charles Smulders, Steve Prentice, Stephen Kleynhans and Brian Gammage, Gartner

RECOMMENDED READING

- "Defining Virtualization for the PC" — Many claims to virtualization are mostly hype; only two types of virtualization are genuine. **By Brian Gammage**
- "2Q06 Update: Global PC Forecast Scenarios, 2006-2008" — Steeper PC price declines in advance of Microsoft Windows Vista's delayed release will drive slightly faster near-term PC unit shipment growth. **By George Shiffler and Mikako Kitagawa**

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REGIONAL HEADQUARTERS

Corporate Headquarters

56 Top Gallant Road
Stamford, CT 06902-7700
U.S.A.
+1 203 964 0096

European Headquarters

Tamesis
The Glanty
Egham
Surrey, TW20 9AW
UNITED KINGDOM
+44 1784 431611

Asia/Pacific Headquarters

Gartner Australasia Pty. Ltd.
Level 9, 141 Walker Street
North Sydney
New South Wales 2060
AUSTRALIA
+61 2 9459 4600

Japan Headquarters

Gartner Japan Ltd.
Aobadai Hills, 6F
7-7, Aobadai, 4-chome
Meguro-ku, Tokyo 153-0042
JAPAN
+81 3 3481 3670

Latin America Headquarters

Gartner do Brazil
Av. das Nações Unidas, 12551
9º andar—World Trade Center
04578-903—São Paulo SP
BRAZIL
+55 11 3443 1509